

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	1490.7	15.81	69.34	1480.7	38.3	101.4	2.00	69.34	108.4	
4	4337.1	15.81	69.34	4219.3	312.0	827.2	0.00	0.00	884.1	
5	5127.7	0.00	0.00	5000.0	350.2	928.6	2.00	180.00	992.5	TARGET BHL 2500'FNL, 1250'FEL
6	7485.7	0.00	0.00	7358.0	350.2	928.6	0.00	0.00	992.5	



**Directional**

**NOBLE ENERGY INC WELD  
COUNTY CO**

SEC.5-T3N-R67W

UPV P05-21D Pad Sec.5-T3N-R67W

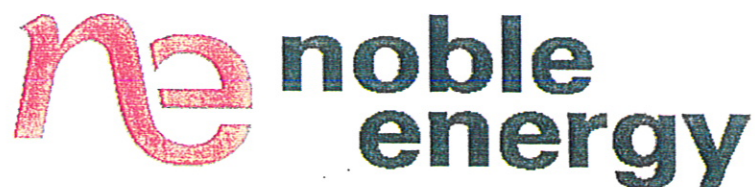
UPRC P05-22D

Wellbore #1

Plan: Noble UPRC P05-22D Plan #3 (11-16-09)

**Standard Planning Report**

16 November, 2009





Database: EDM den0-adp01 Server Data  
 Company: NOBLE ENERGY INC WELD COUNTY CO  
 Project: SEC.5-T3N-R67W  
 Site: UPV P05-21D Pad Sec.5-T3N-R67W  
 Well: UPRC P05-22D  
 Wellbore: Wellbore #1  
 Design: Noble UPRC P05-22D Plan #3 (11-16-09)

Local Co-ordinate Reference: Well UPRC P05-22D  
 TVD Reference: WELL @ 4888.0ft (Original Well Elev)  
 MD Reference: WELL @ 4888.0ft (Original Well Elev)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature

Project	SEC.5-T3N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	UPV P05-21D Pad Sec.5-T3N-R67W				
Site Position:		Northing:	1,336,119.85 ft	Latitude:	40° 15' 16.416 N
From:	Lat/Long	Easting:	3,163,796.04 ft	Longitude:	104° 54' 47.304 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.38 °

Well	UPRC P05-22D					
Well Position	+N/-S	0.0 ft	Northing:	1,336,120.66 ft	Latitude:	40° 15' 16.416 N
	+E/-W	122.8 ft	Easting:	3,163,918.84 ft	Longitude:	104° 54' 45.720 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,875.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/19/2009	9.12	66.97	53,232

Design	Noble UPRC P05-22D Plan #3 (11-16-09)				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	69.34	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,490.7	15.81	69.34	1,480.7	38.3	101.4	2.00	2.00	0.00	69.34	
4,337.1	15.81	69.34	4,219.3	312.0	827.2	0.00	0.00	0.00	0.00	
5,127.7	0.00	0.00	5,000.0	350.2	928.6	2.00	-2.00	0.00	180.00	TARGET BHL 250C
7,485.7	0.00	0.00	7,358.0	350.2	928.6	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data  
Company: NOBLE ENERGY INC WELD COUNTY CO  
Project: SEC.5-T3N-R67W  
Site: UPV P05-21D Pad Sec.5-T3N-R67W  
Well: UPRC P05-22D  
Wellbore: Wellbore #1  
Design: Noble UPRC P05-22D Plan #3 (11-16-09)

Local Co-ordinate Reference: Well UPRC P05-22D  
TVD Reference: WELL @ 4888.0ft (Original Well Elev)  
MD Reference: WELL @ 4888.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.40	69.34	720.0	0.0	0.1	0.1	2.00	2.00	0.00
760.0	1.20	69.34	760.0	0.2	0.6	0.6	2.00	2.00	0.00
800.0	2.00	69.34	800.0	0.6	1.6	1.7	2.00	2.00	0.00
840.0	2.80	69.34	839.9	1.2	3.2	3.4	2.00	2.00	0.00
880.0	3.60	69.34	879.9	2.0	5.3	5.7	2.00	2.00	0.00
920.0	4.40	69.34	919.8	3.0	7.9	8.4	2.00	2.00	0.00
960.0	5.20	69.34	959.6	4.2	11.0	11.8	2.00	2.00	0.00
1,000.0	6.00	69.34	999.5	5.5	14.7	15.7	2.00	2.00	0.00
1,040.0	6.80	69.34	1,039.2	7.1	18.9	20.2	2.00	2.00	0.00
1,080.0	7.60	69.34	1,078.9	8.9	23.5	25.2	2.00	2.00	0.00
1,120.0	8.40	69.34	1,118.5	10.8	28.8	30.7	2.00	2.00	0.00
1,160.0	9.20	69.34	1,158.0	13.0	34.5	36.9	2.00	2.00	0.00
1,200.0	10.00	69.34	1,197.5	15.4	40.7	43.5	2.00	2.00	0.00
1,240.0	10.80	69.34	1,236.8	17.9	47.5	50.7	2.00	2.00	0.00
1,280.0	11.60	69.34	1,276.0	20.6	54.7	58.5	2.00	2.00	0.00
1,320.0	12.40	69.34	1,315.2	23.6	62.5	66.8	2.00	2.00	0.00
1,360.0	13.20	69.34	1,354.2	26.7	70.8	75.7	2.00	2.00	0.00
1,400.0	14.00	69.34	1,393.1	30.0	79.6	85.1	2.00	2.00	0.00
1,440.0	14.80	69.34	1,431.8	33.5	88.9	95.0	2.00	2.00	0.00
1,480.0	15.60	69.34	1,470.4	37.2	98.7	105.5	2.00	2.00	0.00
1,490.7	15.81	69.34	1,480.7	38.3	101.4	108.4	2.00	2.00	0.00
1,520.0	15.81	69.34	1,508.9	41.1	108.9	116.4	0.00	0.00	0.00
1,560.0	15.81	69.34	1,547.4	44.9	119.1	127.3	0.00	0.00	0.00
1,600.0	15.81	69.34	1,585.9	48.8	129.3	138.2	0.00	0.00	0.00
1,640.0	15.81	69.34	1,624.3	52.6	139.5	149.1	0.00	0.00	0.00
1,680.0	15.81	69.34	1,662.8	56.5	149.7	160.0	0.00	0.00	0.00
1,720.0	15.81	69.34	1,701.3	60.3	159.9	170.9	0.00	0.00	0.00
1,760.0	15.81	69.34	1,739.8	64.2	170.1	181.8	0.00	0.00	0.00
1,800.0	15.81	69.34	1,778.3	68.0	180.3	192.7	0.00	0.00	0.00
1,840.0	15.81	69.34	1,816.8	71.8	190.5	203.6	0.00	0.00	0.00
1,880.0	15.81	69.34	1,855.3	75.7	200.7	214.5	0.00	0.00	0.00
1,920.0	15.81	69.34	1,893.8	79.5	210.9	225.4	0.00	0.00	0.00
1,960.0	15.81	69.34	1,932.2	83.4	221.1	236.3	0.00	0.00	0.00
2,000.0	15.81	69.34	1,970.7	87.2	231.3	247.2	0.00	0.00	0.00
2,040.0	15.81	69.34	2,009.2	91.1	241.5	258.1	0.00	0.00	0.00



Database: EDM den0-adp01 Server Data  
Company: NOBLE ENERGY INC WELD COUNTY CO  
Project: SEC.5-T3N-R67W  
Site: UPV P05-21D Pad Sec.5-T3N-R67W  
Well: UPRC P05-22D  
Wellbore: Wellbore #1  
Design: Noble UPRC P05-22D Plan #3 (11-16-09)

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MD Reference: WELL @ 4888.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,080.0	15.81	69.34	2,047.7	94.9	251.7	269.0	0.00	0.00	0.00
2,120.0	15.81	69.34	2,086.2	98.8	261.9	279.9	0.00	0.00	0.00
2,160.0	15.81	69.34	2,124.7	102.6	272.1	290.8	0.00	0.00	0.00
2,200.0	15.81	69.34	2,163.2	106.5	282.3	301.7	0.00	0.00	0.00
2,240.0	15.81	69.34	2,201.6	110.3	292.5	312.6	0.00	0.00	0.00
2,280.0	15.81	69.34	2,240.1	114.2	302.7	323.5	0.00	0.00	0.00
2,320.0	15.81	69.34	2,278.6	118.0	312.9	334.4	0.00	0.00	0.00
2,360.0	15.81	69.34	2,317.1	121.9	323.1	345.3	0.00	0.00	0.00
2,400.0	15.81	69.34	2,355.6	125.7	333.3	356.2	0.00	0.00	0.00
2,440.0	15.81	69.34	2,394.1	129.5	343.5	367.1	0.00	0.00	0.00
2,480.0	15.81	69.34	2,432.6	133.4	353.7	378.0	0.00	0.00	0.00
2,520.0	15.81	69.34	2,471.0	137.2	363.9	388.9	0.00	0.00	0.00
2,560.0	15.81	69.34	2,509.5	141.1	374.1	399.8	0.00	0.00	0.00
2,600.0	15.81	69.34	2,548.0	144.9	384.3	410.7	0.00	0.00	0.00
2,640.0	15.81	69.34	2,586.5	148.8	394.5	421.6	0.00	0.00	0.00
2,680.0	15.81	69.34	2,625.0	152.6	404.7	432.5	0.00	0.00	0.00
2,720.0	15.81	69.34	2,663.5	156.5	414.9	443.4	0.00	0.00	0.00
2,760.0	15.81	69.34	2,702.0	160.3	425.1	454.3	0.00	0.00	0.00
2,800.0	15.81	69.34	2,740.4	164.2	435.3	465.2	0.00	0.00	0.00
2,840.0	15.81	69.34	2,778.9	168.0	445.5	476.1	0.00	0.00	0.00
2,880.0	15.81	69.34	2,817.4	171.9	455.7	487.0	0.00	0.00	0.00
2,920.0	15.81	69.34	2,855.9	175.7	465.9	497.9	0.00	0.00	0.00
2,960.0	15.81	69.34	2,894.4	179.5	476.1	508.8	0.00	0.00	0.00
3,000.0	15.81	69.34	2,932.9	183.4	486.3	519.7	0.00	0.00	0.00
3,040.0	15.81	69.34	2,971.4	187.2	496.5	530.6	0.00	0.00	0.00
3,080.0	15.81	69.34	3,009.9	191.1	506.7	541.5	0.00	0.00	0.00
3,120.0	15.81	69.34	3,048.3	194.9	516.9	552.4	0.00	0.00	0.00
3,160.0	15.81	69.34	3,086.8	198.8	527.1	563.3	0.00	0.00	0.00
3,200.0	15.81	69.34	3,125.3	202.6	537.3	574.2	0.00	0.00	0.00
3,240.0	15.81	69.34	3,163.8	206.5	547.5	585.1	0.00	0.00	0.00
3,280.0	15.81	69.34	3,202.3	210.3	557.7	596.0	0.00	0.00	0.00
3,320.0	15.81	69.34	3,240.8	214.2	567.9	606.9	0.00	0.00	0.00
3,360.0	15.81	69.34	3,279.3	218.0	578.1	617.8	0.00	0.00	0.00
3,400.0	15.81	69.34	3,317.7	221.9	588.3	628.7	0.00	0.00	0.00
3,440.0	15.81	69.34	3,356.2	225.7	598.5	639.6	0.00	0.00	0.00
3,480.0	15.81	69.34	3,394.7	229.5	608.7	650.5	0.00	0.00	0.00
3,520.0	15.81	69.34	3,433.2	233.4	618.9	661.4	0.00	0.00	0.00
3,560.0	15.81	69.34	3,471.7	237.2	629.1	672.3	0.00	0.00	0.00
3,600.0	15.81	69.34	3,510.2	241.1	639.3	683.2	0.00	0.00	0.00
3,640.0	15.81	69.34	3,548.7	244.9	649.5	694.1	0.00	0.00	0.00
3,680.0	15.81	69.34	3,587.1	248.8	659.7	705.0	0.00	0.00	0.00
3,720.0	15.81	69.34	3,625.6	252.6	669.9	715.9	0.00	0.00	0.00
3,760.0	15.81	69.34	3,664.1	256.5	680.1	726.8	0.00	0.00	0.00
3,800.0	15.81	69.34	3,702.6	260.3	690.3	737.7	0.00	0.00	0.00
3,840.0	15.81	69.34	3,741.1	264.2	700.5	748.6	0.00	0.00	0.00
3,880.0	15.81	69.34	3,779.6	268.0	710.7	759.5	0.00	0.00	0.00
3,920.0	15.81	69.34	3,818.1	271.9	720.9	770.4	0.00	0.00	0.00
3,960.0	15.81	69.34	3,856.5	275.7	731.1	781.3	0.00	0.00	0.00
4,000.0	15.81	69.34	3,895.0	279.5	741.3	792.2	0.00	0.00	0.00
4,040.0	15.81	69.34	3,933.5	283.4	751.5	803.1	0.00	0.00	0.00
4,080.0	15.81	69.34	3,972.0	287.2	761.7	814.0	0.00	0.00	0.00
4,120.0	15.81	69.34	4,010.5	291.1	771.8	824.9	0.00	0.00	0.00
4,160.0	15.81	69.34	4,049.0	294.9	782.0	835.8	0.00	0.00	0.00
4,200.0	15.81	69.34	4,087.5	298.8	792.2	846.7	0.00	0.00	0.00

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North Reference: True  
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,240.0	15.81	69.34	4,126.0	302.6	802.4	857.6	0.00	0.00	0.00
4,280.0	15.81	69.34	4,164.4	306.5	812.6	868.5	0.00	0.00	0.00
4,320.0	15.81	69.34	4,202.9	310.3	822.8	879.4	0.00	0.00	0.00
4,337.1	15.81	69.34	4,219.3	312.0	827.2	884.1	0.00	0.00	0.00
4,360.0	15.35	69.34	4,241.4	314.1	833.0	890.2	2.00	-2.00	0.00
4,400.0	14.55	69.34	4,280.1	317.8	842.6	900.5	2.00	-2.00	0.00
4,440.0	13.75	69.34	4,318.9	321.2	851.8	910.3	2.00	-2.00	0.00
4,480.0	12.95	69.34	4,357.8	324.5	860.4	919.6	2.00	-2.00	0.00
4,520.0	12.15	69.34	4,396.8	327.6	868.5	928.3	2.00	-2.00	0.00
4,560.0	11.35	69.34	4,436.0	330.4	876.2	936.4	2.00	-2.00	0.00
4,600.0	10.55	69.34	4,475.3	333.1	883.3	944.0	2.00	-2.00	0.00
4,640.0	9.75	69.34	4,514.6	335.6	889.9	951.1	2.00	-2.00	0.00
4,680.0	8.95	69.34	4,554.1	337.9	896.0	957.6	2.00	-2.00	0.00
4,720.0	8.15	69.34	4,593.7	340.0	901.5	963.5	2.00	-2.00	0.00
4,760.0	7.35	69.34	4,633.3	341.9	906.6	968.9	2.00	-2.00	0.00
4,800.0	6.55	69.34	4,673.0	343.6	911.1	973.8	2.00	-2.00	0.00
4,840.0	5.75	69.34	4,712.8	345.1	915.1	978.0	2.00	-2.00	0.00
4,880.0	4.95	69.34	4,752.6	346.4	918.6	981.8	2.00	-2.00	0.00
4,920.0	4.15	69.34	4,792.5	347.6	921.6	985.0	2.00	-2.00	0.00
4,960.0	3.35	69.34	4,832.4	348.5	924.0	987.6	2.00	-2.00	0.00
5,000.0	2.55	69.34	4,872.3	349.2	926.0	989.6	2.00	-2.00	0.00
5,040.0	1.75	69.34	4,912.3	349.7	927.4	991.1	2.00	-2.00	0.00
5,080.0	0.95	69.34	4,952.3	350.1	928.3	992.1	2.00	-2.00	0.00
5,120.0	0.15	69.34	4,992.3	350.2	928.6	992.5	2.00	-2.00	0.00
5,127.7	0.00	0.00	5,000.0	350.2	928.6	992.5	2.00	-2.00	0.00
TARGET BHL 2500'FNL, 1250'FEL									
5,160.0	0.00	0.00	5,032.3	350.2	928.6	992.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,072.3	350.2	928.6	992.5	0.00	0.00	0.00
5,240.0	0.00	0.00	5,112.3	350.2	928.6	992.5	0.00	0.00	0.00
5,280.0	0.00	0.00	5,152.3	350.2	928.6	992.5	0.00	0.00	0.00
5,320.0	0.00	0.00	5,192.3	350.2	928.6	992.5	0.00	0.00	0.00
5,360.0	0.00	0.00	5,232.3	350.2	928.6	992.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,272.3	350.2	928.6	992.5	0.00	0.00	0.00
5,440.0	0.00	0.00	5,312.3	350.2	928.6	992.5	0.00	0.00	0.00
5,480.0	0.00	0.00	5,352.3	350.2	928.6	992.5	0.00	0.00	0.00
5,520.0	0.00	0.00	5,392.3	350.2	928.6	992.5	0.00	0.00	0.00
5,560.0	0.00	0.00	5,432.3	350.2	928.6	992.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,472.3	350.2	928.6	992.5	0.00	0.00	0.00
5,640.0	0.00	0.00	5,512.3	350.2	928.6	992.5	0.00	0.00	0.00
5,680.0	0.00	0.00	5,552.3	350.2	928.6	992.5	0.00	0.00	0.00
5,720.0	0.00	0.00	5,592.3	350.2	928.6	992.5	0.00	0.00	0.00
5,760.0	0.00	0.00	5,632.3	350.2	928.6	992.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,672.3	350.2	928.6	992.5	0.00	0.00	0.00
5,840.0	0.00	0.00	5,712.3	350.2	928.6	992.5	0.00	0.00	0.00
5,880.0	0.00	0.00	5,752.3	350.2	928.6	992.5	0.00	0.00	0.00
5,920.0	0.00	0.00	5,792.3	350.2	928.6	992.5	0.00	0.00	0.00
5,960.0	0.00	0.00	5,832.3	350.2	928.6	992.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,872.3	350.2	928.6	992.5	0.00	0.00	0.00
6,040.0	0.00	0.00	5,912.3	350.2	928.6	992.5	0.00	0.00	0.00
6,080.0	0.00	0.00	5,952.3	350.2	928.6	992.5	0.00	0.00	0.00
6,120.0	0.00	0.00	5,992.3	350.2	928.6	992.5	0.00	0.00	0.00
6,160.0	0.00	0.00	6,032.3	350.2	928.6	992.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,072.3	350.2	928.6	992.5	0.00	0.00	0.00



Database: EDM den0-adp01 Server Data  
Company: NOBLE ENERGY INC WELD COUNTY CO  
Project: SEC.5-T3N-R67W  
Site: UPV P05-21D Pad Sec.5-T3N-R67W  
Well: UPRC P05-22D  
Wellbore: Wellbore #1  
Design: Noble UPRC P05-22D Plan #3 (11-16-09)

Local Co-ordinate Reference: Well UPRC P05-22D  
TVD Reference: WELL @ 4888.0ft (Original Well Elev)  
MD Reference: WELL @ 4888.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,240.0	0.00	0.00	6,112.3	350.2	928.6	992.5	0.00	0.00	0.00
6,280.0	0.00	0.00	6,152.3	350.2	928.6	992.5	0.00	0.00	0.00
6,320.0	0.00	0.00	6,192.3	350.2	928.6	992.5	0.00	0.00	0.00
6,360.0	0.00	0.00	6,232.3	350.2	928.6	992.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,272.3	350.2	928.6	992.5	0.00	0.00	0.00
6,440.0	0.00	0.00	6,312.3	350.2	928.6	992.5	0.00	0.00	0.00
6,480.0	0.00	0.00	6,352.3	350.2	928.6	992.5	0.00	0.00	0.00
6,520.0	0.00	0.00	6,392.3	350.2	928.6	992.5	0.00	0.00	0.00
6,560.0	0.00	0.00	6,432.3	350.2	928.6	992.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,472.3	350.2	928.6	992.5	0.00	0.00	0.00
6,640.0	0.00	0.00	6,512.3	350.2	928.6	992.5	0.00	0.00	0.00
6,680.0	0.00	0.00	6,552.3	350.2	928.6	992.5	0.00	0.00	0.00
6,720.0	0.00	0.00	6,592.3	350.2	928.6	992.5	0.00	0.00	0.00
6,760.0	0.00	0.00	6,632.3	350.2	928.6	992.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,672.3	350.2	928.6	992.5	0.00	0.00	0.00
6,840.0	0.00	0.00	6,712.3	350.2	928.6	992.5	0.00	0.00	0.00
6,880.0	0.00	0.00	6,752.3	350.2	928.6	992.5	0.00	0.00	0.00
6,920.0	0.00	0.00	6,792.3	350.2	928.6	992.5	0.00	0.00	0.00
6,960.0	0.00	0.00	6,832.3	350.2	928.6	992.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,872.3	350.2	928.6	992.5	0.00	0.00	0.00
7,015.7	0.00	0.00	6,888.0	350.2	928.6	992.5	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE UPRC P05-22D									
7,040.0	0.00	0.00	6,912.3	350.2	928.6	992.5	0.00	0.00	0.00
7,080.0	0.00	0.00	6,952.3	350.2	928.6	992.5	0.00	0.00	0.00
7,120.0	0.00	0.00	6,992.3	350.2	928.6	992.5	0.00	0.00	0.00
7,160.0	0.00	0.00	7,032.3	350.2	928.6	992.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,072.3	350.2	928.6	992.5	0.00	0.00	0.00
7,240.0	0.00	0.00	7,112.3	350.2	928.6	992.5	0.00	0.00	0.00
7,280.0	0.00	0.00	7,152.3	350.2	928.6	992.5	0.00	0.00	0.00
7,320.0	0.00	0.00	7,192.3	350.2	928.6	992.5	0.00	0.00	0.00
7,335.7	0.00	0.00	7,208.0	350.2	928.6	992.5	0.00	0.00	0.00
CODELL									
7,360.0	0.00	0.00	7,232.3	350.2	928.6	992.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,272.3	350.2	928.6	992.5	0.00	0.00	0.00
7,440.0	0.00	0.00	7,312.3	350.2	928.6	992.5	0.00	0.00	0.00
7,480.0	0.00	0.00	7,352.3	350.2	928.6	992.5	0.00	0.00	0.00
7,485.7	0.00	0.00	7,358.0	350.2	928.6	992.5	0.00	0.00	0.00
HARDLINE 200'S OF BHL									

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North Reference: True  
Survey Calculation Method: Minimum Curvature

### Targets

#### Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
HARDLINE 200'S OF	0.00	0.00	7,358.0	150.2	828.6	1,336,276.33	3,164,746.39	40° 15' 17.900 N	104° 54' 35.033 W
- plan misses target center by 223.6ft at 7485.7ft MD (7358.0 TVD, 350.2 N, 928.6 E)									
- Polygon									
Point 1			7,358.0	0.0	0.0	1,336,276.33	3,164,746.39		
Point 2			7,358.0	0.0	200.0	1,336,277.66	3,164,946.38		
TARGET BHL 2500'F	0.00	0.00	5,000.0	350.2	928.6	1,336,477.00	3,164,845.10	40° 15' 19.877 N	104° 54' 33.743 W
- plan hits target center									
- Point									
TARGET CIRCLE UP	0.00	0.00	6,888.0	350.2	928.6	1,336,476.98	3,164,845.06	40° 15' 19.876 N	104° 54' 33.743 W
- plan hits target center									
- Circle (radius 75.0)									

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,015.7	6,888.0	NIOBRARA		0.00	
7,335.7	7,208.0	CODELL		0.00	